

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
11 August 2005 (11.08.2005)

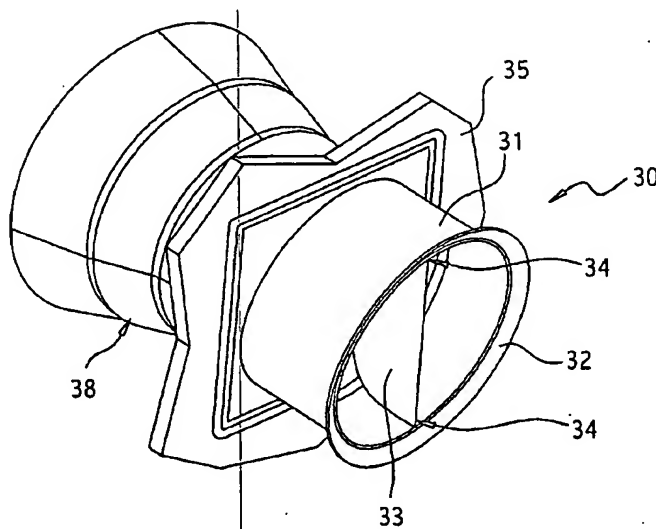
PCT

(10) International Publication Number  
**WO 2005/072171 A2**

- (51) International Patent Classification: Not classified (74) Agent: BUSH, Kenneth, M.; Buch Intellectual Property Law Group, LLC, P.O. Box 381146, Birmingham, AL 35238 (US).
- (21) International Application Number: PCT/US2005/001452 (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 18 January 2005 (18.01.2005) (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/539,816 28 January 2004 (28.01.2004) US
- (71) Applicant (for all designated States except US): HH TECHNOLOGIES, INC. [US/US]; P.O. Box 99, 1733 County Road 68, Bremen, AL 35033 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): JENKINS, Lesley, Ray [US/US]; 406 Section Line Road, Hanceville, AL 35077 (US). DANIELS, Waymon, Neal [US/US]; 2291 Shiloh Fort Lamar Road, Danielsville, GA 30633 (US).

[Continued on next page]

(54) Title: VERTICAL DOOR FAN SHUTTER



(57) Abstract: A fan shutter having one end attachable to an exhaust fan and the opposite inlet end having a pair of vertical doors that are biased to close when the fan is off and to open by the force of vacuum when the fan is on. The use of vertical doors prevents the accumulation of dust and dirt on the doors. The vertical doors pivot horizontally in a housing that may have any desired shape, including a tubular shape with a bell mouth. The tubular bell mouth shutter design further provides improved air flow characteristics and decreased stress on the exhaust fan, compared to conventional fan shutters.



**Published:**

— without international search report and to be republished upon receipt of that report

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*